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EXAMINER	
COLE, LAURA C	
ART UNIT	**PAPER NUMBER**
1744	

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,497	CHENVAINU ET AL.	
	Examiner	Art Unit	
	Laura C. Cole	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22,24-30 and 33-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22,24-30 and 33-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03302005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

15

DETAILED ACTION

Claim Objections

1. Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 11 does not further structurally limit claims 1 or 4. In that the head is "configured", there is not any structural limitation required of the head that when in "use on a power toothbrush (that) imparts to the head a rotationally oscillating motion."

2. Claims 1-22 and 24 are objected to because of the following informalities:

Claim 1 recites the limitation "the neck" in Lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the neck" in Lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 Line 2 employs parentheses improperly.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 requires the top surface of the support member to have an aspect ratio (length/width) of about 1.2 to 1, however in order to have an aspect ratio of 1 (the width having the same value as the length), the support member cannot be any one of the shapes of claim 1, including an oval, an ellipse (elliptical), or a rounded diamond.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 7-8, 10, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Shipp, USPN 5,604,951 as evidenced by Kott, USPN 3,196,299.

Shipp discloses the claimed invention including a head (14) that is an elongated support member (see Figure 3) including a lower portion (16) and a top surface having an elongated shape of an oval (Column 3 Lines 44-48), the lower portion be constructed so that its major axis will be positioned generally parallel to a long axis (see Figures), and a plurality of bristles extending from the support member (Column 4 Lines 21-22; 26, 28, 30), at least some of the bristles have different heights (see Figures 2 and 5), the bristles being arranged so that their heights are symmetric in a non-translatable mirror image symmetry about two planes of symmetry (see Figures 2 and 5). The bristles have different lengths as measured from a top surface of the support member (see Figures 2, 3, and 5). The bristles are arranged in tufts (26, 28, 30). The two planes of symmetry are arranged about a central axis of the brush head (one plane

extending longitudinally vertically in the direction that "16" extends, the other plane extending perpendicular to "16" and also vertical or in other word, extending through the page in Figure 2). The two planes of symmetry would then intersect in the center of the elongated support member (in the center of the head of Figure 1 or 4). There are one or more elastomeric elements (18, 36, or 34). Shipp discloses structure pertaining to a brush head that is capable of extending from a neck to be oscillated if a drive mechanism of a power toothbrush were present, and the major axis of the shape will be posited generally parallel to a long axis of a handle of a power toothbrush, as evidenced by Kott, USPN 3,196,299.

5. Claims 1-2, 4-5, 7-10, 12, 14, and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hudson, USPN 5,881,425 as evidenced by Kott, USPN 3,196,299.

Hudson et al. disclose the claimed invention including a head (12) that is an elongated support member that appears to be somewhat elliptical or oval (Figure 2), and a plurality of bristles extending from the support member (14, 50, 52), at least some of the bristles have different heights (see Figures 5A and 5B), the bristles being arranged so that their heights are symmetric in a non-translatable mirror image symmetry about two planes of symmetry (see Figure 6). The bristles have different lengths measured from a top surface of the support member (see Figures 5A-5B). The bristles are arranged in tufts (54, 56, 58, 62, 64, 66). The tufts having at least three different heights (Figures 5A, 5B; Column 6 Lines 49-55, Column 7 Lines 8-14) and are arranged so that the tips define a rounded contour (Figures 4-5B; Column 6 Lines 56-59). The two planes of symmetry are arranged about a central axis of the brush head

(one plane extending longitudinally vertically in the direction that "16" extends, the other plane extending perpendicular to "16" and also "vertical" or in other words, divides the brush head horizontally in half in Figure 6). The bristles have at least four different heights (see Figure 5B). The support member has an overall surface area from about 170 to 200mm^2 (the length of the head is 3 cm, Column 4 Lines 29-30 and various elliptical widths in Table 1, using the largest width the area is about 235mm^2, which is *about* 200mm^2). The bristle heights are symmetric in a non-translatable mirror image symmetry about two planes of symmetry (see Figures 5A-6). The tallest bristles have a height from about 20-50% greater than the height of the shortest bristles (Column 6 Lines 49-55, Column 7 Lines 8-14 have bristle ranges that would fall in to that range, for example if the shortest is 7mm and the tallest is 12mm). Hudson et al. discloses structure pertaining to a brush head that is capable of extending from a neck to be oscillated if a drive mechanism of a power toothbrush were present, and the major axis of the shape will be posited generally parallel to a long axis of a handle of a power toothbrush, as evidenced by Kott, USPN 3,196,299.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 2, 7-8, 10-11, 17, 25-26, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Driesen et al., USPN 5,652,990 in view of Braun et al., US 2004/0154112.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an

invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Driesen et al. disclose the claimed invention including a head (24), an elongated support member (38) including a lower portion (36) that extends from a neck of a power toothbrush (40) to be oscillated by a drive mechanism of the toothbrush (28, 30), the lower portion constructed so that when the head (24) is mounted on the power toothbrush (20), a major axis of the elongated shape will be positioned generally parallel to a long axis of a handle (22) of the power toothbrush (see Figures 1 and 3), and a plurality of bristles extending from the support member (48, 50, 60, 62, 64, 68, 82), at least some of the bristles have different heights (see Figures 2, 5), the bristles being arranged so that their heights are symmetric in a non-translatable mirror image symmetry about two planes of symmetry (see Figures 2-4). The bristles have different lengths measured from a top surface to the support member (see Figures 2 and 5). The bristles are arranged in tufts (60, 62, 64, 82). The two planes of symmetry are arranged about a central axis of the brush head intersecting in a vicinity of the center (one plane

being vertical on axis "52", the other plane being vertical on axis "68"). The head is configured for use on a power toothbrush having a rotationally oscillating motion (Column 3 Lines 63-67). The tallest bristles are from about 20-50% greater than the height of the shortest bristles (if the shortest bristle is 7mm and the longest is 9mm, the tallest bristle would be approximately 28% greater than the shortest; Column 3 Lines 26-38). The power toothbrush includes a handle (22). The toothbrush contacts teeth (Column 1 Lines 33-50).

Braun et al. disclose the claimed invention of a head for a power toothbrush and a power toothbrush, wherein the support member (116) has an elongated shape that is elliptical or oval in order to include a greater amount of tufts on a brush head (Paragraph 33).

It would have been obvious for one of ordinary skill in the art to modify the shape of the support member of Driesen et al. to be elongated in an elliptical shape, as Braun et al. teach, to include additional tufts on the brush head. Additionally, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the support member of Driesen et al. to have a different elongated shape, such of that as an oval, an elliptical shape, or a rounded diamond, since the Applicant has not disclosed that different elongated shaped support members provides an advantage, is used for a particular purpose, or solves a stated problem.

7. Claims 1, 7-8, 10-11, 17-22, 25, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kressner et al., USPN 6,021,538.

Kressner et al. disclose the claimed invention including a head (24), an elongated support member (44) including a lower portion (36) constructed to extend from a neck (40) of a power toothbrush (20) to be oscillated by a drive mechanism of the power toothbrush (28, 30), the lower portion being further constructed so that a major axis of the elongated shape will be positioned generally parallel to a long axis of a handle of the power toothbrush (see Figure 1), and a plurality of bristles extending from the support member (part of tufts 60, 62, 72, 74, 76, or 86), at least some of the bristles have different heights (see tables in Figures 2-5), the bristles being arranged so that their heights are symmetric in a non-translatable mirror image symmetry about two planes of symmetry (see Figures 2-5). The bristles are arranged in tufts (60, 62, 72, 74, 76, 86). The two planes of symmetry are arranged about a central axis of the brush head intersecting in a vicinity of the center (one plane being vertical on axis "52", the other plane being vertical on an unlabeled axis that extends horizontally through the brush head perpendicular to "52" when it intersects "52" and "50"; see Figures 2-5). The head is configured for use on a power toothbrush having a rotationally oscillating motion (Column 3 Lines 12-17). A top surface of the support member has an overall surface area from about 170 to 200mm^2 (Column 3 Lines 47-50; when the diameter is 15mm the area is 176.625 mm^2.) The top surface has a major or minor axis (or diameter since it is circular) of 15mm, which is a major axis of *about* 16 to 17mm and a minor axis of *about* 13 to 14 mm (see Column 3 Lines 47-50). Since the top surface of the support member is essentially circular (Column 3 Lines 47-50), there is an aspect ratio of 1. The power toothbrush includes a handle (22). The toothbrush contacts teeth (Column 1

Lines 33-36). Kressner et al. does not include that the support member has an elongated shape such as an oval, elliptical, or a rounded diamond.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the support member of Kressner et al. to have a different elongated shape, such of that as an oval, an elliptical shape, or a rounded diamond, since the Applicant has not disclosed that different elongated shaped support members provides an advantage, is used for a particular purpose, or solves a stated problem.

8. Claims 1-10, 15-17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Millar, USPN 5,315,731 in view of Shipp, USPN 5,604,951.

Millar discloses the claimed invention including a head (20) that is an elongated support member (Figures 1, 2, and 5), and a plurality of bristles extending from the support member (31, 32), at least some of the bristles have different heights (see Figure 5; Column 4 Lines 18-34), the bristles being arranged so that their heights are symmetric in a non-translatable mirror image symmetry about two planes of symmetry (see Figures 2 and 4). The bristles of tufts 31 and 32 have different lengths measured from a top surface of a support member (Column 4 Lines 18-34). The bristles of tufts 31 (or 32) extend the same length from a top surface of the support member and the top surface is contoured so that the bristles of tufts 31 have different heights as measured from a horizontal plane taken through the lowest point on the top surface (see Figures 1 and 5). The tufts of 31 appear to have at least three different heights due to the contour of the support member in Figure 5. The bristles are arranged in tufts (31 or 32). The

two planes of symmetry are arranged about a central axis of the brush head (one plane extending longitudinally vertically in the direction that "20" extends, the other plane extending perpendicular to "20" and also "vertical" or in other words, divides the brush head horizontally in half in Figure 2). The bristles define a continuously curved surface (see Figures 1 and 5). The heights are symmetric, in a non-translatable mirror image symmetry about two planes of symmetry (see Figures 1, 2, and 5). The tallest bristles are from about 20-50% greater than the height of the shortest bristles (Column 4 Lines 18-34). The top surface has a concave shape (see Figures 1 or 5). Millar discloses structure pertaining to a brush head that is capable of extending from a neck to be oscillated if a drive mechanism of a power toothbrush were present, and the major axis of the shape will be posited generally parallel to a long axis of a handle of a power toothbrush, as evidenced by Kott, USPN 3,196,299. Millar does not include that the support member has an elongated shape such as an oval, elliptical, or a rounded diamond. Also, Millar does not include a toothbrush head having elastomeric elements.

Shipp discloses all elements above, including the teaching that one may employ a support member having an oval shape instead of a generally rectangular shape (Column 3 Lines 44-48). Shipp also includes elastomeric elements which are beneficial in applying toothpaste to teeth and polishing the teeth to clean under a gum line (Column 4 Line 59 to Column 5 Line 2).

It would have been obvious for one of ordinary skill in the art to modify the generally rectangular support member of Millar and change the shape to be oval, as Shipp teaches, in order to fulfill ergonomic requirements of a mouth to be cleaned and it

would have been obvious for one of ordinary skill in the art to modify the toothbrush head of Millar to provide it with elastomeric elements, as Shipp teaches, in order to improve the cleaning and polishing characteristics of the toothbrush head. Additionally, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the support member of Millar to have a different elongated shape, such of that as an oval, an elliptical shape, or a rounded diamond, since the Applicant has not disclosed that different elongated shaped support members provides an advantage, is used for a particular purpose, or solves a stated problem.

9. Claims 1, 2, 4, 5, 7-13, 16-18, 20, 21, 22, 25-26, 28-29, 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown, Jr. et al., US 2002/0138926.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing

that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Brown Jr. et al. disclose the claimed invention including a head (14 or 50) having an elongated support member (34 or 50) including a lower portion constructed to extend from a neck of a power toothbrush (12) to be oscillated by a drive mechanism of the power toothbrush (paragraph 22), wherein the lower portion is constructed so that a major axis of the elongated shape will be positioned parallel to a long axis of a handle of a power toothbrush (see Figures; paragraph 22), and a plurality of bristles extending from the support member (included in tufts 6, 18, 20, 22, 24, 26, 52, 54, 56, 58, 60, 62), at least some of the bristles have different heights (see Figures 7 and 8 particularly), the bristles being arranged so that their heights are symmetric in a non-translatable mirror image symmetry about two planes of symmetry (see Figures 3 and 6). The bristles have different lengths measured from a top surface of the support member (see Figures 1, 3, 5, 7, 8). The tufts of bristles have at least three different heights (Paragraphs 23-29, 37-42, 44) and the tufts are arranged so that the tips define a rounded contour (see Figures 1, 3, 5, and 8). The bristles are arranged in tufts (6, 18, 20, 22, 24, 26, 52, 54, 56, 58, 60, 62). The two planes of symmetry are arranged about a central axis of the brush head (one plane at "A" as shown in Figure 6 and the other plane at "B" as shown in Figure 6 or the same planes as drawn in Figure 6 may be used in Figure 3). The bristles define a continuously curved surface (see Figures 1 and 5). The head is configured for use on a power toothbrush having a rotationally oscillating motion (Paragraph 22). The tufts have at least four different heights (Paragraphs 23-29). The

rounded contour is lowest adjacent a pivot point of the head (tufts "16" are central to the head and "pivot point" in Figure 1, the tufts "52" are central to the head, central axis, and "pivot point" in Figure 8). The heights are symmetric, in a non-translatable mirror image symmetry, about two planes (see Figures 3, 6, and 8, particularly Figure 6 that clearly indicates the symmetry). The tallest bristles are from about 20-50% greater than the height of the shortest bristles (tuft 26 is about 38% greater in height than tuft 16). The top surface of the support member has a major axis of *about* 14mm (13.25mm, Paragraph 44). It also has a minor axis in the range of 13-14mm (13.25mm, Paragraph 44). Since the head is circular, there is an aspect ratio of 1. The device is a power toothbrush and includes a handle (12). There is a drive mechanism configured to drive the head (Paragraph 30). The powered toothbrush is for contacting teeth (Paragraph 33, 44). Brown, Jr. does not include that the support member has an elongated shape such as an oval, elliptical, or a rounded diamond.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the support member of Brown, Jr. et al. to have a different elongated shape, such of that as an oval, an elliptical shape, or a rounded diamond, since the Applicant has not disclosed that different elongated shaped support members provides an advantage, is used for a particular purpose, or solves a stated problem.

10. Claims 25, 27-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kott, USPN 3,196,299 in view of Millar, USPN 5,315,731, and in further view of Shipp, USPN 5,604,951.

Kott discloses a power toothbrush comprising a handle (24) having a neck (26) extending therefrom, a motor within the handle (27), and extending from the neck a support member (portion that supports the bristles, unlabeled) including a lower portion (21a) constructed to be oscillated by the motor (Column 2 Lines 52-57, 65-69; Column 3 Lines 21-50), a top surface of the support member having an elongated shape (see Figure 1) wherein a major axis of the elongated shape is disposed generally parallel to a long axis of the handle (as shown in Figure 1, the axis extending vertically). Kott teaches a powered device that accepts the heads of conventional toothbrushes so that there is a greater variety of toothbrushes available to a user so that the user has the most desirable bristle hardness, brush contour, etc. and an interchangeable head so that more than one user can use the powered portion of the device (Column 1 Lines 22-36). Kott does not include a toothbrush head having a head having bristles of different heights that are arranged so that their heights are symmetric in a non-translatable mirror image symmetry or that the elongated support member is an oval, elliptical shape, or a rounded diamond shape.

Millar discloses all elements above, including a toothbrush head having a head having bristles of different heights that are arranged so that their heights are symmetric in a non-translatable mirror image symmetry, wherein the bristles extend the same length from a top surface of the support member and the top surface is contoured so that the bristles have different heights as measured from a horizontal plane taken through the lowest point on the top surface (see above).

Shipp discloses all elements above, including the teaching that one may employ a support member having an oval shape instead of a generally rectangular shape (Column 3 Lines 44-48).

It would have been obvious for one of ordinary skill in the art to provide the toothbrush device of Kott with a manual toothbrush having a toothbrush head having bristle tufts of varying lengths that are arranged in a non-translatable mirror image symmetry, as Millar teaches, in order to provide a bristle curvature that converges on an individual tooth and gum line and it would have been obvious for one of ordinary skill in the art to modify the generally rectangular support member of Kott and Millar, and change the shape to be oval, as Shipp teaches, in order to fulfill ergonomic requirements of a mouth to be cleaned. Additionally, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the support member of Kott and Millar to have a different elongated shape, such of that as an oval, an elliptical shape, or a rounded diamond, since the Applicant has not disclosed that different elongated shaped support members provides an advantage, is used for a particular purpose, or solves a stated problem.

11. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kott, USPN 3,196,299 in view of Braun et al., USPN 6,553,604, in further view of Hudson et al., USPN 5,881,425.

Kott discloses all elements above, however does not include a brush head having a support member having the shape of an oval, ellipse, or a rounded diamond, or plurality of elastomeric fins extending from the top surface of the support member,

and in combination a plurality of bristle tufts and fins having at least three different heights arranged so that their tips define a rounded contour.

Braun et al. disclose a toothbrush having a head including a support member (12), the support member having a lower portion (10) and a top surface having an elongated shape of an oval (see Figure 1), a plurality of bristles (14) extending from the top surface of the support member, a plurality of elastomeric fins (16) extending from the top surface of the support member, wherein the heights of the bristles and elastomeric fins appear to have three different heights (as shown in Figure 1), and further wherein the elastomeric elements are pivotally mounted on the support member (Column 3 Lines 44-54). Braun et al. does not disclose that three different heights are arranged so that the tips define a rounded contour.

Hudson et al. disclose all elements above, including that the tufts having at least three different heights (Figures 5A, 5B; Column 6 Lines 49-55, Column 7 Lines 8-14) and are arranged so that the tips define a rounded contour (Figures 4-5B; Column 6 Lines 56-59).

It would have been obvious for one of ordinary skill in the art to provide the toothbrush device of Kott with a manual toothbrush having a toothbrush head having bristle tufts and elastomeric fins of differing heights, as Braun et al. teach, in order to provide a cleaning means wherein there are cleaning elements that are increasingly capable of penetrating and cleaning the space between teeth, and it would have been obvious for one of ordinary skill in the art to modify the heights of the bristles and fins of

Kott and Braun to define a rounded contour, as Hudson et al. teach, in order to clean the sides and top of a tooth all at once.

Applicants Arguments

12. In the response of 04 April 2005, the Applicant contends that:

A. Driesen and Kressner only teach circular support members, and not elongated shapes such as elliptical, oval, or rounded diamond.

B. Brown does not include an elongated top surface.

C. Ernest does not include a support member which is constructed so that when the head is mounted on a power toothbrush, a major axis of the elongated shape will be positioned generally parallel to a long axis of the handle of the toothbrush.

D. Shipp, Hudson, and Millar are directed to a manual toothbrush and there is no teaching or suggestion that the heads would be suitable for use on a power toothbrush.

E. Kott describes a powered toothbrush wherein the power actuator oscillates an entire toothbrush "21." Thus, toothbrush "21" does not have a head that is oscillated relative to a neck of the toothbrush.

Response to Arguments

13. Applicant's arguments A-B with respect to the claims in view of Driesen, Kressner, and Brown have been considered but are moot in view of the new ground(s) of rejection above.

14. Applicant's argument C, filed 04 April 2005, with respect to Ernest have been fully considered and are persuasive. The rejection of Ernest has been withdrawn.

15. Applicant's arguments D-E filed 04 April 2005 have been fully considered but they are not persuasive.

D. Shipp, Hudson, and Millar are manual toothbrushes. However, as evidenced by Kott, USPN 3,196,299, manual toothbrushes are capable and suitable for being used as heads for power toothbrushes. Again, Kott teaches a powered device that accepts the heads of conventional toothbrushes so that there is a greater variety of toothbrushes available to a user so that the user has the most desirable bristle hardness, brush contour, etc. and an interchangeable head so that more than one user can use the powered portion of the device (Column 1 Lines 22-36). Further, it is noted that Claims 1 and 4 each claim "A head for a power toothbrush..." and not a power toothbrush.

E. The *entire* construction of the device of Kott is a power toothbrush, the power actuator oscillates the toothbrush "21", however toothbrush "21" acts as the brush head portion. Portion "26" of Kott acts as the neck, and brush head "21" is oscillated relative to the neck "26".

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LCC
31 May 2005

MARK SPISICH
PRIMARY EXAMINER
GROUP 3400
1700